

DIRECT TESTIMONY OF
MICHAEL D. SHINN
ON BEHALF OF
DOMINION ENERGY SOUTH CAROLINA, INC.
DOCKET NO. 2020-2-E

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT**
2 **POSITION.**

3 A. My name is Michael D. Shinn, and my business address is 220 Operation
4 Way, Cayce, South Carolina 29033. I am currently employed by Dominion Energy
5 South Carolina, Inc. (“DESC” or “Company”) as General Manager of the Fuel
6 Procurement and Asset Management Department (“Fuel Department”).
7

8 **Q. PLEASE BRIEFLY SUMMARIZE YOUR DUTIES WITH DOMINION**
9 **ENERGY SOUTH CAROLINA, INC.**

10 A. My responsibilities include managing the purchase and delivery of coal, No.
11 2 fuel oil, and limestone on behalf of the Company and as an agent for South
12 Carolina Generating Company (“GENCO”). Also, I am responsible for
13 administering uranium procurement functions for the nuclear generating facilities
14 operated by DESC. I am also responsible for managing the contractual relationship
15 with Cameco, discussed further below, for which the contract expires on December
16 31, 2020.

1 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR**
2 **BUSINESS EXPERIENCE.**

3 A. I earned a Bachelor of Science Degree in Mechanical Engineering from the
4 University of South Carolina in Columbia, South Carolina, in 1995. While in
5 college, I was a student intern in the Fossil Hydro Power Plant Performance Group
6 for five years. Since graduation, I have held various positions within the Fuel
7 Department to include managing rail transportation and delivery, spot coal
8 purchasing, coal quality management, synthetic fuel optimization, and state and
9 federal regulatory reporting. While Manager of Fuel Technical Services, Industrial
10 Coal and Synfuel, I worked with coal suppliers and DESC's power plants to increase
11 fuel and transportation flexibility as well as to maximize the utilization of the
12 Company's assets. In December 2009, I was promoted to General Manager of the
13 Coal and Oil Procurement Department, and in January 2016, I assumed my current
14 position.
15

16 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

17 A. The purpose of my testimony is to describe the procurement and delivery
18 activities for coal and No. 2 fuel oil used in electric generation for DESC as well as
19 GENCO's Williams Station for the period January 1, 2019, through December 31,
20 2019 (the "Review Period"). I also discuss changes that have occurred in coal
21 markets since the last annual fuel adjustment hearing and how these changes
22 affected coal procurement during the Review Period. My testimony also describes

1 the procurement and delivery of limestone for our wet scrubbers located at the
2 Wateree and Williams steam plants. Finally, my testimony explains the nuclear fuel
3 purchasing process for DESC generation and discusses uranium prices for the
4 Review Period and the near-term outlook.

5
6 **Q. PLEASE DESCRIBE GENCO AND ITS RELATIONSHIP TO DESC.**

7 A. GENCO was incorporated on October 1, 1984, and owns Williams Electric
8 Generating Station. GENCO sells to DESC the entire capacity and output from
9 Williams Station under a Unit Power Sales Agreement approved by the Federal
10 Energy Regulatory Commission. Hereafter, when I refer to DESC's fossil steam
11 plants, I include GENCO.

12
13 **COAL, NO. 2 FUEL OIL, AND**
14 **LIMESTONE PURCHASING**

15 **Q. PLEASE SUMMARIZE DESC'S FUEL PROCUREMENT NEEDS AND**
16 **PURCHASING PRACTICES FOR DESC'S FOSSIL PLANTS.**

17 A. The Fuel Department purchases all coal, No. 2 fuel oil, limestone, and
18 associated transportation for DESC's fossil plants focusing on reliability of supply,
19 conformity with operational and environmental requirements, and reasonable
20 prices.

1 **Q. WHAT WAS THE BURN RATE FOR COAL IN 2019 AND WHAT DO YOU**
2 **EXPECT THE BURN RATE FOR COAL TO BE IN 2020?**

3 A. In 2019, DESC consumed 2,311,709 tons of coal in the production of
4 electricity for its customers. This amount was 31% lower than the amount of coal
5 consumed in 2018.

6 The Company projects that its burn rate for coal in 2020 will be
7 approximately 2,150,856 tons. This projected burn rate is based on normal weather,
8 the Company's projections of coal and natural gas prices, and the economic dispatch
9 of units.

10
11 **Q. HOW DOES THE COMPANY SECURE NECESSARY QUANTITIES OF**
12 **COAL AND NO. 2 FUEL OIL AT COMPETITIVE PRICES?**

13 A. Coal is procured under long-term (more than one year) and spot purchase (up
14 to one year) agreements to achieve a balance of reliable supplies while maintaining
15 flexibility to react to market changes or short-term system needs. Under historic
16 market conditions, DESC seeks to have long-term purchases represent
17 approximately 60% to 80% of projected system demand. Spot purchases provide a
18 mechanism to manage inventories and react to short-term changes in the
19 marketplace, and generally represent 20% to 40% of projected system demand.
20 Broadly, the Company is altering its practices regarding long-term versus short-term
21 coal procurement contracts to reflect a reduction in demand for coal-fired
22 generation.

1 In contrast to the complexities of coal purchasing contracts, contracts for No.
2 2 fuel oil are requirements contracts that are competitively solicited every two years.
3 Generally, pricing for these contracts is based upon market indices that are adjusted
4 daily.

5 DESC maintains an active list of qualified suppliers of coal and No. 2 fuel
6 oil. Typically, as contracts expire or needs are identified, solicitations are issued for
7 competitive sealed bids. Responses to these solicitations inform our knowledge of
8 market demand and prices. Moreover, because the responses to these solicitations
9 often include proposals for coal supplies with specifications different than the
10 requested specifications, these responses also aid our ongoing efforts to ascertain
11 price differences for varying qualities of fuels.

12
13 **Q. PLEASE SUMMARIZE THE COMPANY'S COAL PURCHASES DURING**
14 **THE REVIEW PERIOD.**

15 A. The Company took delivery of 1,466,012 tons of coal under long-term
16 agreements and 1,029,601 tons of coal through spot purchases during the Review
17 Period. As a whole, long-term agreements provided 58.74% of the requirement for
18 the Company's coal-fired stations, while spot purchases accounted for the remaining
19 41.26% of DESC's coal requirements during 2019. In summary, operational
20 considerations, weather, fuel market conditions, and economic dispatch of the
21 Company's generating assets combined to impact DESC's balance of coal

1 purchases in the Review Period, driving the Company to rely more heavily on short-
2 term agreements to meet its requirements for coal.

3
4 **Q. FOR 2020, PLEASE EXPLAIN THE COMPANY'S PLANS FOR**
5 **ADDRESSING ITS NEEDS FOR COAL SUPPLIES UNDER LONG-TERM**
6 **CONTRACTS AND SPOT PURCHASES.**

7 A. DESC anticipates soliciting suppliers of coal for additional long-term
8 contracts in 2020. The Company currently has contracts in place that are projected
9 to meet a balance of approximately 70% of coal supplies through long-term
10 contracts and approximately 30% through short-term contracts in 2020. However,
11 this balance may not be achieved because of market conditions, weather, and
12 operational considerations. The Company plans to maintain the flexibility to
13 manage its coal inventories and purchase the most competitively priced fuel being
14 ever mindful that its burn rate has the potential to fluctuate widely due to market
15 conditions and changes in the price of coal or natural gas which may result in
16 imbalances of fuel supply and demand. In sum, the Company will continue to
17 evaluate market conditions carefully, always seeking to purchase coal supplies for
18 our customers at economically reasonable prices while ensuring that the Company's
19 service commitments are reliably and prudently met.

Q. HOW MUCH COAL DOES DESC PLAN TO PURCHASE IN 2020 UNDER LONG-TERM CONTRACTS?

A. DESC currently has long-term contracts with six suppliers for the delivery of 1.4 million tons of coal. This quantity represents 69.43% of DESC's expected total coal receipts for 2020. The coal purchased under these contracts ranges in quality from 12,500 to 12,700 British Thermal Units ("BTU") per pound and from 1.00% to 1.63% sulfur content. These contracts are for an initial period of three years, and some of the contracts have options to renew. The amount of coal under contract will vary from year to year, and the contract terms will vary from contract to contract.

During 2020, the Company will continue to carefully evaluate its need for coal in future periods. We anticipate that DESC will negotiate additional commitments for coal supply for 2021 and beyond seeking to maintain a reasonable balance between coal supplied under long-term contracts and spot purchases while obtaining coal at reasonable prices and ensuring that the Company's supply requirements are reliably and prudently met.

Q. FOR 2020, PLEASE EXPLAIN THE COMPANY'S CURRENT PLANS FOR ADDRESSING ITS NEEDS FOR COAL SUPPLIES UNDER SHORT-TERM CONTRACTS.

A. The Company currently has spot contracts with five suppliers for the delivery of 100,991 tons of coal. This quantity represents 4.84% of DESC's expected total

1 coal receipts for 2020. The purchase of the remainder of the Company's expected
2 coal purchases in 2020 of 25.73% (100% - (69.43% long-term + 4.84% short-term)
3 = 25.73%) will be heavily dependent on weather and the generation produced at the
4 other generation assets employed by DESC. The Company will make additional
5 spot or long-term purchases as needed to ensure that enough supply is available for
6 its electricity generation needs at a reasonable price. Acquiring coal supplies in this
7 manner will provide DESC with the flexibility to manage its generation assets in the
8 most cost-effective way, which can vary from month to month.

9
10 **Q. GIVEN THE STATE OF THE DOMESTIC COAL MARKET, WILL**
11 **SUFFICIENT SUPPLIES OF COAL BE AVAILABLE ON THE SPOT**
12 **MARKET TO MEET THE COMPANY'S GENERATION NEEDS?**

13 A. With utilities across the country decommissioning coal plants and relying
14 more heavily on natural gas generation facilities, the demand for coal in the
15 domestic market will, overall, be reduced unless an export market develops. Export
16 coal demand was strong in the first half of 2019 but has greatly reduced in the latter
17 half. Given this market climate, coal suppliers continued to produce, but at
18 diminished levels and with less capacity to increase production if needed due to
19 demand. While the Company does not anticipate that these market conditions will
20 change in the short-term, the trend for coal production in our supply areas will
21 continue to decrease. Current supply forecasts indicate coal supplies will remain
22 available but may be limited depending on international demand.

1 **Q. HOW DOES DESC ENSURE THAT THE RIGHT QUANTITY OF FUEL**
2 **SUPPLIES IS AVAILABLE TO MEET GENERATION DEMANDS AT ITS**
3 **FOSSIL FUEL FACILITIES?**

4 A. DESC uses several steps to bring the fuel supply and demand factors
5 together. Fuel usage levels are calculated and forecasted for each of the generating
6 plants. Coal and No. 2 fuel oil inventories are then validated and contract quantities
7 are summed and compared against projected system usage to determine needs going
8 forward. With this information, the Fuel Department carefully evaluates the
9 Company's coal requirements and determines whether transportation options under
10 current contracts, spot purchases, or additional long-term agreements are
11 appropriate. Through this process, DESC has been successful in leveraging long-
12 term and short-term coal purchases to achieve reasonable purchase prices while
13 ensuring the reliability of coal supplies necessary to support system needs.

14 No. 2 fuel oil is purchased to ensure adequate back up to natural gas for
15 DESC's intermediate and peaking generators. Typically, fuel storage tanks are filled
16 going into peak usage periods.

17 **Q. HOW DOES THE COMPANY DETERMINE A "REASONABLE PRICE"**
18 **FOR COAL AND NO. 2 FUEL OIL PURCHASES?**

19 A. The Fuel Department works diligently to achieve an optimization between
20 adequate fuel supplies of acceptable quality at reasonable purchase prices. The
21 ultimate value of the delivered fuel (coal or No. 2 fuel oil) is determined by the

1 actual delivered cost per Million British Thermal Units (“MMBTU”), accounting
2 for any fuel impacts in the operation of our generating plants. Market prices
3 fluctuate due to such things as seasonality, political turmoil, national weather trends,
4 and domestic/international supply/demand imbalances. DESC continuously
5 evaluates factors that impact prices, while employing contract strategies such as
6 predetermined price adjustments and quarterly adjustments to mitigate the effect
7 market conditions have on coal contracts. Market publications, indices, industry
8 solicitations, trade associations, and interacting with market participants are some
9 of the sources and methods that we use to stay abreast of market trends and
10 conditions.

11
12 **Q. HOW DOES THE COMPANY MANAGE COAL INVENTORIES TO**
13 **ENSURE RELIABILITY AND AVAILABILITY?**

14 A. To maintain adequate supply at its coal-fired generating facilities, the
15 Company continuously manages inventories using long-term contracts, spot market
16 purchases, and transportation options. The Company used these tools in support of
17 its efforts to maintain an inventory of approximately 680,000 tons of coal during the
18 Review Period based on the average of each of 12 months’ ending inventories to
19 support anticipated consumption during the Review Period and to maintain enough
20 coal to run each coal unit at full capacity for approximately 45 days. This
21 methodology allows for an inventory of more than 680,000 tons at the beginning of
22 high demand periods and less than 680,000 tons entering the milder months. This

1 targeted inventory level aids in protecting DESC and its customers against lack of
2 coal availability as well as against production and delivery problems that may arise
3 from time to time. The coal inventory is also an immediately available resource to
4 meet our supply needs when short-term market prices are unfavorable. A crucial
5 aspect of the Company's inventory management is balancing its short-term needs
6 against long-term requirements and expected future operating conditions.

7
8 **Q. PLEASE PROVIDE AN OVERVIEW OF TRANSPORTATION SERVICES**
9 **DURING THE REVIEW PERIOD.**

10 A. In 2019, CSX Transportation, Inc. ("CSX") remained the primary rail
11 transporter of coal for DESC. The CSX contract rates were subject to quarterly
12 adjustments according to indices published by the American Association of
13 Railroads and will remain under the current contract until February 28, 2021.
14 Renegotiation of the current contract will begin mid-year 2020. At that time, DESC
15 will compare its viable options for transporting the coal it needs to operate reliably
16 at market prices.

17
18 **Q. DOES DESC HAVE ACCESS TO INTERNATIONAL COAL SUPPLIES?**

19 A. Yes. Although the Company did not receive any deliveries of international
20 coal during the Review Period, DESC has the capability, through existing utility-
21 business partnerships, of obtaining and transporting imported coal to its coal

1 generation facilities on a spot or as-needed basis when prices for international coal
2 are competitive with domestically produced coal.

3
4 **Q. PLEASE DESCRIBE THE STATE OF THE INTERNATIONAL COAL**
5 **MARKET IN WHICH DESC PARTICIPATES AND ITS CURRENT PLANS**
6 **REGARDING IMPORT COAL.**

7 A. International coal prices have plummeted over the Review Period. The
8 market for coal on the API 2 index began the year at \$85.00/ton and ended the year
9 at \$52.80. The Company continues to monitor the market for use of international
10 coal in DESC's system, but the current domestic market precludes its use at this
11 time. The demand for coal in the international market from U.S. ports ended 2019
12 weak and is expected to continue that way into 2020. The predominance of low-cost
13 natural gas, changing environmental regulations, and mild weather in coal
14 consuming countries are some of the main reasons.

15 DESC will continue to monitor and remain informed of opportunities to
16 purchase international coal as part of its ongoing effort to reduce fuel costs for both
17 DESC and its customers and to ensure that an adequate supply of coal is available
18 to meet its generation needs.

Q. WHAT WERE DESC'S DELIVERED COAL COSTS FOR THE REVIEW PERIOD?

A. DESC's average delivered cost in dollars per MMBTU by month for coal purchased for steam plants during the Review Period is set forth in Table 1.

Table 1

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
\$3.55	\$3.62	\$3.62	\$3.60	\$3.40	\$3.31	\$3.24	\$3.26	\$3.39	\$3.76	\$3.87	\$3.37

Q. WHAT CHANGES DOES THE COMPANY ANTICIPATE IN THE COAL MARKET FOR THE 2020 FORECASTED PERIOD?

A. DESC's coal prices for the forecasted period are expected to fluctuate around current levels depending on DESC's need for spot coal. Over the past 12 months, the price per ton of Central Appalachian ("CAPP") coal decreased from \$75.00 per ton on January 2, 2019, to \$45.50 per ton on December 31, 2018, representing an approximately 40% price decrease. Spot coal prices have been stable in January 2020 at approximately \$45.50 per ton.

The CAPP coal market continues to be impacted by dwindling demand caused by coal plant closures, export market collapse, increased mining expenses, multiple coal supplier bankruptcies, and a severe lack of capital resources. The current prices for thermal CAPP coal are inadequate for most remaining producers to be able to attract investors and produce our typical specification.

1 These mounting issues combined with environmental concerns have led to a
2 much more limited ability to borrow money for recapitalization of mines in general,
3 and to the inability of mining companies to acquire new mining permits. These
4 factors will continue to put upward pressure on coal production costs during 2020
5 and will ultimately result in more consolidation, bankruptcies, and little to no
6 investment in future supply assets. Notwithstanding these upward pressures, the
7 Company expects coal prices will remain stable until demand increases or supply
8 decreases below demand. Current production will continue to decline to meet
9 anticipated demand with supply expected to be obtainable based primarily on the
10 continued supply of low-cost natural gas and continued decommissioning of coal
11 consuming power plants, all of which reduces the demand for coal.

12
13 **Q. WHAT ADDITIONAL STEPS IS THE COMPANY TAKING TO MITIGATE**
14 **FUEL-RELATED EXPENSES?**

15 A. DESC continuously tries to reduce costs by purchasing coal of lower quality
16 where practicable and acceptable to a coal-burning plant. During 2019, DESC
17 elected to take delivery of coals purchased mainly from the Central Appalachia as
18 well as purchasing coal from Northern Appalachia. Generally, these coals could be
19 purchased at a lower delivered cost than lower quality coals purchased directly from
20 a Central Appalachian coal supplier while maintaining the reliability of the coal
21 units at Wateree. DESC will continue with this practice until it is no longer
22 beneficial or different coals need to be purchased for testing.

Q. WHAT HAS BEEN THE RECENT PRICING TREND IN THE NO. 2 FUEL OIL INDUSTRY?

A. Delivered No. 2 fuel oil average monthly prices during the Review Period ranged from a low of \$14.12/MMBTU in October 2019 to a high of \$16.33/MMBTU in April 2019. With the vast shale resources that have come online in the U.S., the cost of fuel oil is expected to remain stable.

Set forth below is Table 2, which shows the average system delivered No. 2 fuel oil prices in dollars/MMBTU for the Review Period for No. 2 fuel oil purchased for steam plants, gas turbines, and combined cycle units.

Table 2

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
\$14.50	N/A	N/A	\$16.33	\$15.72	\$14.89	\$14.90	\$14.47	N/A	\$14.12	\$15.20	\$15.33

Q. WHAT RESPONSIBILITIES DOES THE FUEL DEPARTMENT HAVE WITH RESPECT TO SO₂ AND NO_x ALLOWANCES?

A. The Fuel Department purchases or trades EPA sulfur dioxide (“SO₂”) and nitrogen oxides (“NO_x”) emission allowances as needed by DESC to compensate for its SO₂ emissions. However, DESC currently is emitting less than its SO₂ and NO_x emission allowances allocated to it by the EPA. For this reason, the Company was not required to purchase SO₂ and NO_x emission allowances. The Company also does not anticipate having to buy any SO₂ or NO_x emission allowances in 2020.

1 **Q. PLEASE EXPLAIN THE FUEL DEPARTMENT'S ACTIVITIES RELATED**
2 **TO THE PROCUREMENT OF LIMESTONE FOR DESC'S POLLUTION**
3 **CONTROL FACILITIES.**

4 A. The Fuel Department is responsible for securing adequate and reliable
5 supplies of limestone for the effective operation of wet limestone scrubbers at the
6 Company's Wateree and Williams Stations. There continue to be limited local
7 suppliers for limestone; however, a new quarry is expected to come online this year
8 in the Georgetown area. During the Review Period, the Company acquired all of its
9 supplies of limestone from a single source, which has proven to be effective and
10 market priced.

11 The limestone is delivered to Williams and Wateree Stations by truck since
12 the current source of supply is located near the plants. In summary, the Company
13 continues to evaluate supply and transportation options designed to ensure adequate
14 and reliable supplies of limestone at reasonable prices at its Williams and Wateree
15 Stations.

16
17 **NUCLEAR FUEL PURCHASING**

18 **Q. PLEASE DESCRIBE THE NUCLEAR FUEL CYCLE.**

19 A. Uranium ore is the source of fuel used to generate electricity in nuclear
20 reactors. Naturally occurring uranium primarily consists of two isotopes, 0.7%
21 Uranium-235 and 99.3% Uranium-238. As depicted in Exhibit No. __ (MDS-1)
22 attached hereto, uranium must undergo a series of processes to produce a useable

1 fuel before it can be used in a reactor for electricity generation. These processes are
2 mining and milling, conversion, enrichment, and fabrication. In the first stage,
3 uranium is mined. Once the ore is mined, it is sent to a mill where it is crushed into
4 smaller pieces and then introduced to a slurry in which a strong mixed solution is
5 used to dissolve the uranium. At this point in the mining and milling process, the
6 uranium is then dried and commonly referred to as yellowcake, also known as
7 uranium oxide (“U₃O₈”) concentrate. In the next step of the process, known as
8 conversion, the U₃O₈ goes through a chemical process in which it is converted into
9 uranium hexafluoride (“UF₆”). The UF₆ then becomes the feedstock required in the
10 isotopic separation process, known as enrichment. Once the UF₆ is enriched to the
11 desired level, it is converted to uranium dioxide (“UO₂”) powder and formed into
12 pellets. This process, and the subsequent steps of inserting the fuel pellets into fuel
13 rods and bundling the rods into fuel assemblies for use in nuclear reactors, is referred
14 to as fabrication.

15 **Q. PLEASE DESCRIBE HOW YOUR DEPARTMENT MAKES PURCHASING**
16 **DECISIONS FOR NUCLEAR FUEL.**

17 A. During the Review Period, the responsibilities related to nuclear fuel
18 procurement were shared between my Department and the Nuclear Design and
19 Analysis department (“NDA”). NDA prepared a forecasted refueling schedule
20 which is reviewed by my Department on an annual basis. This forecast formed the
21 foundation for the nuclear fuel requirements forecast. Once the nuclear fuel

1 requirements forecast was developed, the Fuel Department was primarily
2 responsible for procuring U₃O₈ and conversion services and NDA was primarily
3 responsible for procuring enrichment and fabrication services. Collectively, my
4 Department and NDA form the Nuclear Fuel Procurement team (“Team”). The
5 Team determined nuclear fuel requirements, shared market information and
6 reviewed offers related to all segments of the nuclear fuel cycle.

7
8 **Q. ARE DESC’S CONTRACTS TO PURCHASE NUCLEAR FUEL**
9 **NORMALLY SHORT-TERM OR LONG-TERM?**

10 A. Due to the long lead time required to process uranium prior to being loaded
11 in DESC’s reactor, the Company’s contracts are normally long-term contracts, with
12 a term in excess of one year. Currently the Company has long-term commitments
13 for uranium and conversion services, enrichment and fabrication for V.C. Summer
14 Unit One. During the Review Period, the Team monitored the nuclear fuel market
15 on an ongoing basis and evaluated spot market opportunities from time to time that
16 may supplement long-term contract supplies as appropriate. Included in the
17 procurement process is the Company’s contingency reserve. The nuclear fuel
18 contingency reserve targets are designed to provide security of supply for future
19 requirements by mitigating potential market disruptions.

1 **Q. PLEASE DESCRIBE THE MOVEMENT OF NUCLEAR FUEL PRICES**
2 **DURING THE CURRENT REVIEW PERIOD.**

3 A. The nuclear fuels market is comprised of two types of pricing scenarios: spot
4 and long-term. Spot prices typically represent any transaction taking place within a
5 year while long-term prices require a commitment for some period beyond one year.
6 Each of the nuclear fuel processes can be purchased individually or bundled at any
7 point in the fuel cycle, with the exception of fabrication. Fabrication is a complex
8 process that has specific requirements for each individual reactor and therefore is
9 typically sourced to a single supplier with long-term agreements. Over the past few
10 years, short-term and long-term prices for uranium, conversion, and enrichment
11 have remained stable. In the near term, prices for uranium and the other processes
12 in the nuclear fuel cycle are anticipated to continue to remain stable for both short-
13 term and long-term pricing.

14
15 **Q. DURING THE REVIEW PERIOD, DID THE COMPANY EXPERIENCE**
16 **ANY ISSUES CONCERNING ITS PROCUREMENT OF NUCLEAR FUEL?**

17 A. Yes. DESC currently procures UF₆ pursuant to a long-term contract with
18 Cameco, Inc. ("Cameco"). This contract provides that, if there is a reduction in the
19 total quantity of electricity that the Company will generate at V.C. Summer Nuclear
20 Station, DESC has the right to elect to reduce the quantity of UF₆ DESC otherwise
21 was supposed to receive. As a result of the delays experienced with the construction
22 of Units 2 and 3 at V.C. Summer, DESC initially exercised this right in 2016 to

1 reduce its future deliveries of UF₆. Following the abandonment of the Units, DESC
2 has continued to exercise this right annually through the audit period to further
3 reduce its future UF₆ needs.

4
5 **Q. HOW DID CAMECO RESPOND TO DESC EXERCISING ITS RIGHTS TO**
6 **REDUCE ITS FUTURE DELIVERIES?**

7 A. On November 8, 2018, Cameco notified DESC that it disputed the
8 Company's decision to reduce future UF₆ deliveries and, on December 29, 2018,
9 elected to submit the dispute to binding arbitration as provided in the contract.
10 Pursuant to an agreement between the parties, the tribunal bifurcated the proceeding
11 into separate liability and damages phases. The parties have each submitted their
12 first substantive pleading on liability, and on January 30, 2020, finished the
13 document production phase. The parties will exchange an additional round of
14 briefing on liability, after which a hearing on liability is expected to take place in
15 late October 2020. The tribunal's award on liability is due within 60 days of the
16 close of the hearing, potentially subject to postponement should the tribunal request
17 post-hearing briefing. If the tribunal finds DESC liable, the case would proceed to
18 the damages phase and the tribunal and parties would agree to a schedule for that
19 portion of the proceeding. DESC will continue to vigorously challenge Cameco's
20 claims in the arbitration and fully defend its contractual rights to elect to reduce
21 these deliveries. The Company will update the Commission as to the status of this
22 issue in future fuel proceedings.

1 **Q. PLEASE EXPLAIN HOW DESC INTENDS TO USE THE NUCLEAR FUEL**
2 **ORIGINALLY PROCURED FOR V.C. SUMMER UNITS 2 AND 3.**

3 A. DESC has already transferred to V.C. Summer Unit 1 inventory the nuclear
4 fuel originally purchased for V.C. Summer Units 2 and 3. With the abandonment
5 of Units 2 and 3, DESC recorded downward adjustments to reduce the carrying
6 value of the fuel to market value.

7 Additionally, as part of integration efforts, DESC is also transitioning to a
8 cost averaging methodology for V.C. Summer Nuclear Station reactor fuel. Costs
9 for converted nuclear fuel and enriched nuclear fuel previously designated for use
10 in V.C. Summer Units 2 and 3 will be blended with V.C. Summer Unit 1 nuclear
11 fuel inventory costs to create an inventory pool from which new refueling batches
12 will be created. This transition will begin with nuclear fuel batch 28 which is to be
13 loaded into the reactor during the Spring 2020 Refueling Outage. As a result of the
14 adjustments of the value of the fuel originally purchased for Units 2 and 3 and the
15 creation of an average cost inventory pool from which future batches will be drawn,
16 the Company expects that the nuclear fuel expense will be significantly reduced in
17 the short term and that the volatility of individual refueling batches due to swings
18 related to uranium commodity pricing and timing of purchases will be reduced.

CONCLUSION

Q. WHAT REQUEST DOES DESC MAKE OF THE COMMISSION IN THIS PROCEEDING?

A. The Fuel Department has made reasonable and prudent efforts to obtain reliable, high quality supplies of coal, No. 2 fuel oil, and limestone and associated transportation at the lowest possible cost to DESC's customers. Likewise, the Fuel Department made reasonable and prudent efforts to obtain market-based prices and reliable supply for its nuclear fuel needs for electric generation and procured at reasonable prices the necessary capacity for delivery of that supply. Therefore, on behalf of DESC, I respectfully request that the Commission find that the Company's fuel purchasing practices were reasonable and prudent for the Review Period.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

The Nuclear Fuel Cycle

